



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of::

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|--------------------------|---|------------------|
| Edward J. A. Pope | : | Leon Yun Bon Lum |
| For: Integrated electro- | : | Examiner |
| luminescent biochip | : | Art Unit 3284 |
| Serial No. 09/965,683 | : | |
| Filed September 27, 2001 | : | |

LISTING OF CLAIMS

To the Commissioner of Patents and Trademarks:

In response to an office action mailed September 7, 2005 the applicant hereby submits his listing of claims as follows:

Listing of claims:

Claim 1 is cancelled.

Claim 2 is cancelled.

3. (As currently amended) A chip of claim 33 in which said light source is an electro-luminescent material.

4. (As currently amended) A chip of claim 33 in which said light source is an organic electro-luminescent material.

5. (As currently amended) A chip of claim 33 in which said light source is an inorganic electro-luminescent] material.

6. (As currently amended) A chip of claim 33 in which said light source is connected by conductive electrodes.

7. (As currently amended) A chip of claim 33 in which said optical detector is a semi-conducting material.

8. (As currently amended) A chip of claim 33 in which said optical detector is composed of amorphous silicon.
9. (As currently amended) A chip of claim 33 in which said optical detector is tuned to respond to a specific wavelength range of light.
10. (As currently amended) A chip of claim 33 with multiple optical detectors in which each of said optical detectors is tuned to a different wavelength range of light.
11. (As currently amended) A chip of claim 33 with multiple optical detectors in which each of said optical detectors is tuned to a different wavelength range of light and the output of these optical detectors produces a spectra.
- Claim 12 is cancelled.
13. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to a bioactive material.
14. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to a protein.
15. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to an antibody.
16. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to a fluorescence-labeled antibody.
17. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to an organic dye.

18. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to a porous gel.

19. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to a porous gel doped with an organic dye.

20. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to a porous gel doped with either a protein or an enzyme.

21. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to a porous gel containing an antibody.

22. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to a porous gel encapsulating a living cell.

23. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to a porous silica gel.

24. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to a porous silica gel doped with an organic dye.

25. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to a porous silica gel doped with a protein or an enzyme.

26. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to a porous silica gel containing an antibody.

27. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to a porous silica gel encapsulating a living cell.

28. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to a porous silica gel micro-sphere.

29. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to a porous silica gel micro-sphere doped with an organic dye.

30. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to a porous silica gel micro-sphere doped with a protein or enzyme.

31. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to a porous silica gel micro-sphere containing an antibody.

32. (As currently amended) A chip of claim 33 in which each of said sensors is coupled to a porous silica gel micro-sphere encapsulating a living cell.

33. (New) A chip comprising a plurality of sensors each of which contains at least one light source and at least one optical detector.